



Long term effect of NPK in rice-wheat cropping system under irrigated conditions of Madhya Pradesh

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Abstract : A long term experiment was conducted on effect NPK in rice-wheat system under all India co-ordinated research project on integrated farming system at college of Agriculture research farm, Kuthulia Rewa during 1977-78 to 2011-12, The study reveals that application of 120kg N/ha, 80kg P₂O₅-/ha and 40kg K₂O/ha gave maximum grain yield, net profit and benefit cost ratio. The wheat equivalent yield was also maximum. The response of nitrogen and phosphorus in rice crop was quadratic while in wheat crop it was linear. The yield of rice crop showed stagnation while wheat crop starts decline. The soil properties after completion of 35-years of rice –wheat crop cycle showed increase in organic carbon, available N and phosphorus while potash status in soil showed reduction in available potash as compared to initial soil status.

Key Words : Long-term effect, Rice-wheat cropping system, Soil health, Soil sickness, Quadratic and linear response

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